

COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Southwest Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

VP No. 3 - Island Creek Coal Company
Route 83, Vansant, Buchanan County, Virginia
Permit No. SWRO10352

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Island Creek Coal Company has applied for a Title V Operating Permit for its VP No. 3, Vansant facility. The Department has reviewed the application and has prepared a Title V Operating Permit.

Engineer/Permit Contact: _____

Date: _____

Air Permit Manager: _____

Date: _____

Deputy Regional Director: _____

Date: _____

FACILITY INFORMATION

Permittee

Island Creek Coal Company
P.O. Drawer L
Oakwood, VA 24631

Facility location

VP No. 3
Route 83
Vansant, Virginia

Facility ID No. 51-027-00009

SOURCE DESCRIPTION

SIC Code: 1222 - Coal preparation

The facility cleans and dries coal prior to shipment by railcar. The facility utilizes a thermal dryer to dry the coal cleaned by the wet process preparation plant that includes froth flotation and vacuum filtration.

Air emissions from the facility include particulate matter (PM, includes PM-10) from all the dry processing units; volatile organic compounds (VOC) from the thermal dryer and wet coal processing; and Nitrogen Oxides (NO_x), Sulfur Dioxide (SO₂), Carbon Monoxide (CO) and trace amounts of Hazardous Air Pollutants (HAP) from the thermal dryer.

The facility is a Title V major source of PM-10, NO₂, SO₂, VOC and CO. This source is located in an attainment area for all pollutants.

COMPLIANCE STATUS

The facility is inspected at least once per year. Previous inspections have found the facility operating in compliance. According to the application the facility is in compliance with all applicable requirements.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD) Description	PCD ID	Pollutant(s) Controlled
S001	Z01	Feeder to Rotary Breaker	1000 TPH	Full Enclosure	D001	PM/PM-10
S002A	Z01	Rotary Breaker	1000 TPH	Full Enclosure	D001	PM/PM-10
S002B	Z01	Crusher	300 TPH	Full Enclosure	D001	PM/PM-10
S003	Z01	Rotary Breaker to Conveyor No. 1	750 TPH	Full Enclosure	D001	PM/PM-10
S004	Z01	Conveyor No. 1 to Raw Coal Silo	750 TPH	Full Enclosure	D002	PM/PM-10
S005	Z01	Raw Coal Silo to Conveyor No. 2	750 TPH	Full Enclosure	D002	PM/PM-10
S006	Z01	Conveyor No. 2 to Preparation Plant	750 TPH	Full Enclosure	D003	PM/PM-10
S007C	P002	Thermal Dryer	500 TPH	Venturi Wet Scrubber	D004	PM, PM-10, SO ₂ , NO ₂
S008	Z01	Conveyor No. 3 to Conveyor No. 4	600 TPH	Full Enclosure	D005	PM/PM-10
S009	Z01	Conveyor No. 4 to Clean Coal Stockpile	600 TPH	Water Spray	D006	PM/PM-10
S010	Z01	Clean Coal Stockpile	0.8 Acres	Water Spray	D006	PM/PM-10
S011	Z01	Dozer Grading Clean Coal Stockpile	600 TPH	Water Spray	D006	PM/PM-10
S012	Z01	Dozer Loading Stockpile Hopper	300 TPH	Water Spray	D006	PM/PM-10
S013	Z01	Stockpile Hopper to Conveyor No. 4	300 TPH	Partial Enclosure	D007	PM/PM-10
S014	Z01	Conveyor No. 4 to Conveyor No. 5	550 TPH	Full Enclosure	D005	PM/PM-10

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD) Description	PCD ID	Pollutant(s) Controlled
S015	Z01	Conveyor No. 5 to Rail Car Loadout	550 TPH	Partial Enclosure	D008	PM/PM-10
S017	Z01	Rail Car Loading through Telescopic Chute	550 TPH	Telescopic Chute	D009	PM/PM-10
S018	Z01	Crusher to Conveyor No. 6	300 TPH	Full Enclosure	D001	PM/PM-10
S019	Z01	Conveyor No. 6 to Refuse Bin	300 TPH	Partial Enclosure	D010	PM/PM-10
S020	Z01	Conveyor No. 6 to Conveyor No. 7	300 TPH	Partial Enclosure	D010	PM/PM-10
S021	Z01	Conveyor No. 7 to Mountain Top Refuse Bin	300 TPH	Partial Enclosure	D011	PM/PM-10
S022	Z01	Loading Refuse Trucks through Stationary Chute	300 TPH	Stationary Chute	D012	PM/PM-10
S023	Z01	Truck Dumping Refuse onto Ground	300 TPH	N/A	N/A	N/A
S024	Z01	Dozer Grading Refuse Pile	300 TPH	N/A	N/A	N/A
S025	Z01	Refuse Bin Chute Dumping onto Ground	300 TPH	N/A	N/A	N/A
S026	Z01	Loading Refuse Trucks by Endloader	300 TPH	N/A	N/A	N/A
S027	Z01	Dozer Loading Stockpile Loadout Feeder	250 TPH	Partial Enclosure	D014	PM/PM-10
S028	Z01	Feeder to Stockpile Loadout	250 TPH	Partial Enclosure	D015	PM/PM-10
S029	Z01	Rail Car Loading through Stationary Chute	250 TPH	Stationary Chute	D016	PM/PM-10

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD) Description	PCD ID	Pollutant(s) Controlled
S030	Z01	Unpaved Roads	72,927 VMT	Water Spray	D017	PM/PM-10

EMISSIONS INVENTORY

A copy of the 1997 permit application emission inventory is included in the application. Emissions are summarized in the following table:

1997 Actual Emissions	Criteria Pollutant Emission in Tons/Year				
	VOC	CO	SO ₂	PM-10	NO _x
Total	40.9	135.0	110.1	46.4	147.5

The emission of HAPs is considered negligible.

EMISSION UNIT APPLICABLE REQUIREMENTS

Thermal Dryer - S007C - McNally #8 Flow Dryer

Limitations

The facility was constructed prior to 1972 and there have not been any subsequent installations or modifications to the facility. Article 15 of Title 9, Section 5, Chapter 40 (9 VAC 5-40-1960 et. al.), Emission Standards for Coal Preparation Plants applies to the facility. The only specific provision contained in the article is the following:

Particulate emissions from the thermal dryer are limited to 105 lb/hr.

Since Article 15 applies to the source, Article 4 of Title 9, Section 5, Chapter 40 (9 VAC 5-40-240 et. al.), Emission Standards for General Process Operations does not apply to the facility.

Article 15 references Article 1 of Chapter 40 for the limit of Visible Emissions and Fugitive Dust Emissions. The only specific requirement is for the visible emissions:

Standard for visible emissions: 20% and 60% for any one 6-minute period in any one hour.

There is a standard for fugitive emissions that specifies controlling the generation of fugitive emissions by various workplace type standards.

Since the facility was constructed prior to 1972, it is not subject to 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants.

Monitoring and Recordkeeping

The monitoring requirements in the permit include the same as would be required by NSPS, as specified in 40 CFR 60, Subpart Y:

Continuous measurement of thermal dryer gas exit temperature.

Continuous measurement of pressure loss through the venturi scrubber.

Continuous measurement of the venturi water supply pressure.

The permit contains a requirement for a weekly visual observation of the thermal dryer stack. If visible emissions are present during any of the observations, a six-minute visible emission evaluation must be performed in accordance with 40 CFR 60, Appendix A, Method 9. If during the six minutes, any readings above 20% opacity are noted, a one-hour Method 9 VEE is required. A Method 9 evaluation will not be required if the visible emissions condition is corrected as expeditiously as possible such that no visible emissions exist; the emissions unit is operating at normal conditions; and, the cause and corrective measures taken are recorded. This will satisfy the periodic monitoring requirement for the visible emission limitation included in the permit.

The emissions from the facility are not likely to exceed the emission standards listed above. With proper operation of the equipment and associated controls, the thermal dryer will not exceed the hourly emission limitations. Attachment A contains a comparison of thermal dryer particulate matter emissions as indicated by the most recent stack test data to the particulate matter emission limit. This comparison indicates compliance can be predicted. Throughput and hours of operation records will be required.

Testing

The permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

No specific reporting requirements have been included in the permit for the thermal dryer.

Streamlined Requirements

There are no streamlined requirements.

Facility-wide Requirements

Limitations

The permit includes the coal processing and cleaning equipment as the facility-wide equipment.

The coal processing and cleaning equipment is subject to 9 VAC 5, Chapter 40, Article 15, Emission Standards for Coal Preparation Plants. There are no emission limits for the coal processing equipment, however, only references to the normal existing rules for visible emissions, fugitive emissions and others.

Monitoring

The monitoring requirements included in the permit meet Part 70 requirements.

The permit contains a requirement for weekly visual observations of the coal processing equipment. If visible emissions are present during any of the observations, a six-minute visible emission evaluation must be performed in accordance with 40 CFR 60, Appendix A, Method 9, on the emissions unit. If during the six minutes, any readings above 20% opacity are noted, a one-hour Method 9 VEE is required. A Method 9 evaluation will not be required if the visible emissions condition is corrected as expeditiously as possible such that no visible emissions exist; the emissions unit is operating at normal conditions; and, the cause and corrective measures taken are recorded. This will satisfy the periodic monitoring requirement for the visible emission limitation included in the permit.

Recordkeeping

The permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include:

Hours of facility operation; and

Visible emission observations and evaluations.

Testing

The permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

Facility-wide reporting requirements are discussed in the General Conditions section below.

Streamlined Requirements

No streamlined requirements.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations which cause excess emissions for more than an hour, including those caused by upsets, within four daytime business hours.

STATE-ONLY APPLICABLE REQUIREMENTS

Island Creek Coal Company did not identify any state-only requirements in their application. Therefore, no state-only applicable requirements have been included in the permit.

FUTURE APPLICABLE REQUIREMENTS

Island Creek Coal Company did not identify any future applicable requirements in their application, and DEQ is unaware of any future requirements that may apply during the life of the Title V permit. Therefore, no future applicable requirements have been included in the permit.

INAPPLICABLE REQUIREMENTS

40 CFR 60, Subpart Y, New Source Performance Standards for Coal Preparation Plants does not apply since the facility was constructed prior to the effective date of October 24, 1974.

COMPLIANCE PLAN

Island Creek Coal Company is currently in compliance with all applicable requirements. No compliance plan was required in the application.

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation ¹ (9 VAC)	Pollutant Emitted (5-80-720 B.)	Rated Capacity (5-80-720 C.)
INS-01	Storage Tanks	5-80-720 B.2	VOC	N/A
INS-02	Emergency Dryer Bypass	5-80-720 B	VOC, NO _x , SO ₂ , PM-10, CO	N/A
INS-03	Rock Dust Silo	5-80-720 B.1	PM-10	N/A
INS-04	Magnetite Silo	5-80-720 B.1	PM-10	N/A
INS-05	Thermal Dryer Pre-Igniter	5-80-720 B	VOC, NO _x , SO ₂ , PM-10, CO	N/A
S007A	Froth Flotation	5-80-720 B.2	VOC, NO _x , SO ₂ , PM-10, CO	N/A
S007B	Vacuum Filtration System	5-80-720 B.2	VOC, NO _x , SO ₂ , PM-10, CO	N/A
S007D	Thickener	5-80-720 B.2	VOC, NO _x , SO ₂ , PM-10, CO	N/A
S016	Rail Car Loadout Sprays	5-80-720 B.2	VOC, NO _x , SO ₂ , PM-10, CO	N/A

¹The citation criteria for insignificant activities is as follows:
 9 VAC 5-80-720 B - Insignificant due to emission levels

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

A public notice regarding the draft permit was placed in *The Virginia Mountaineer* newspaper in Grundy, Virginia on March 14, 2002. EPA was sent a copy of the draft permit and notified of the public notice on March 8, 2002. The affected states, including West Virginia, Kentucky, North Carolina and Tennessee, were sent a copy of the public notice in a letter dated March 8, 2002. All persons on the title V mailing list were sent a copy of the public notice by e-mail, fax or letter, dated no later than March 14, 2002.

Public comments were accepted from March 14, 2002, through April 12, 2002. No comments were received from the public or the affected states regarding the draft permit. EPA requested further information pertaining to thermal dryer particulate emissions. The EPA had no other comments regarding the draft permit. A Response to Comments Document outlining the public participation process was prepared.

Attachment A

VP No.3 - Island Creek Coal Company, Registration No. 10352 Thermal Dryer Particulate Emissions

Particulate emissions from the VP No. 3 thermal dryer will be compared to applicable particulate emission limits for a compliance determination. According to the permittee, the most recent emissions sampling that included particulate matter was conducted on the VP No. 3 thermal dryer from October 7 to October 9, 1997. The thermal dryer consists of a pulverized coal-fired furnace with a fluidized bed dryer. The system was designed by the McNally Corporation. Particulate emissions are controlled by a Flex-Kleen High-Energy Flooded Disc scrubber.

Particulate matter (PM) concentrations were determined as outlined in EPA Method 5. Four tests for particulate matter were conducted while the dryer was operating at maximum capacity. Test results are summarized as follows:

	<u>Run 1</u>	<u>Run 2</u>	<u>Run 3</u>	<u>Run 4</u>
PM, grains/dscf	0.01	0.006	0.011	0.009
PM, lb/MMBtu	0.16	0.11	0.19	0.14
PM, lb/hr	14.7	8.9	15.8	12.5

Where: grains/dscf = grains per dry standard cubic foot,
lb/MMBtu = pounds per million British thermal units, and
lb/hr = pounds per hour.

Since the thermal dryer was constructed prior to 1972 with no subsequent modifications, the requirements of Article 15 of Title 9, Section 5, Chapter 40, Emission Standards for Coal Preparation Plants are applicable. The particulate emission limit of 105 lb/hr, as indicated by 9 VAC 5-40-1980 A, applies to the VP No. 3 thermal dryer. A comparison of the emission limit indicated by 9 VAC 5-40-1980 A to the maximum emission rate of 15.8 lb/hr from Run 3, indicates compliance can be predicted.